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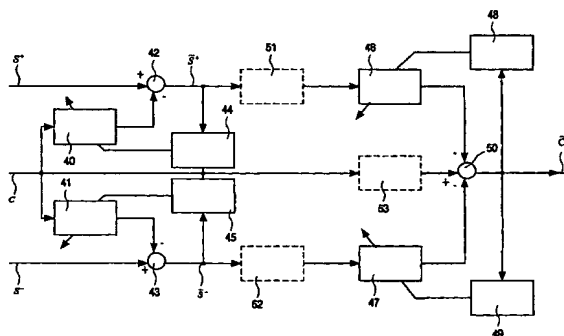
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(54) Title: APPARATUS AND METHOD FOR READING INFORMATION FROM AN INFORMATION CARRIER



(57) Abstract: ABSTRACT: In modern optical disc systems, inter-track spacing is chosen relatively small in order to allow high storage densities. As a result, the optical spot has a radius comparable with the track pitch, and the data written on neighboring tracks appear in the target track signal in the form of inter-track interference (cross-talk). To tackle the cross-talk problem, cross-talk canceling schemes are normally employed. These schemes use three spots, one spot on the main track and two satellite spots on adjacent tracks. The read signal (C) is improved by minimizing the cross-talk between the satellite signals ( $S^+$ ,  $S^-$ ) and the read signal (C). However, due to the decreasing inter-track spacing, the decorrelation concept fails since the satellite spots read too much central track information and become strongly correlated with the read signal (C), which causes "leakage" in the decorrelation. The present invention solves this problem with an additional circuit for outputting improved satellite signals ( $\tilde{S}^+$ ,  $\tilde{S}^-$ ) which circuit suppresses cross-talk of the main track present in the satellite signals ( $S^+$ ,  $S^-$ ) by minimizing a correlation between the satellite signals ( $S^+$ ,  $S^-$ ) and the read signal (C), the improved satellite signals ( $\tilde{S}^+$ ,  $\tilde{S}^-$ ) being subsequently fed to the first circuit which is arranged to suppress the cross-talk of the read signal (C) by minimizing a correlation between the improved read signal ( $\tilde{C}$ ) and the improved satellite signals ( $\tilde{S}^+$ ,  $\tilde{S}^-$ ).



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